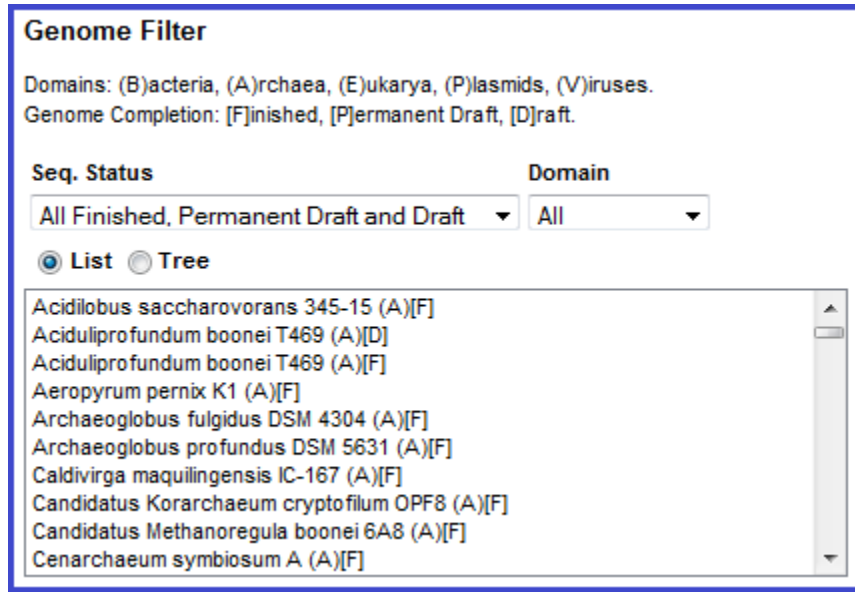


Genome Filter

Genome Filter, as shown in Figure 1, is a way to limit the scope of search. As a component, it resides inside the pages of **Gene Search**, **Blast**, **Cassette Search**, **Function Search**, **Function Alignment**, **Artemis ACT**, **Genome vs Metagenomes**, and other areas.



Genome Filter

Domains: (B)acteria, (A)rchaea, (E)ukarya, (P)lasmiids, (V)iruses.
Genome Completion: [F]inished, [P]ermanent Draft, [D]raft.

Seq. Status **Domain**

All Finished, Permanent Draft and Draft All

☒ List ☐ Tree

- Acidilobus saccharovorans 345-15 (A)[F]
- Aciduliprofundum boonei T469 (A)[D]
- Aciduliprofundum boonei T469 (A)[F]
- Aeropyrum pernix K1 (A)[F]
- Archaeoglobus fulgidus DSM 4304 (A)[F]
- Archaeoglobus profundus DSM 5631 (A)[F]
- Caldivirga maquilensis IC-167 (A)[F]
- Candidatus Korarchaeum cryptofilum OPF8 (A)[F]
- Candidatus Methanoregula boonei 6A8 (A)[F]
- Cenarchaeum symbiosum A (A)[F]

Figure 1: Genome Filter.

The feature of **Genome Filter** is client-driven and dynamically updated. If making a choice in “seq. status” or “domain”, user can notice a rapid response in the listing area of genomes. If metagenome inclusion is desired, Microbiome will become part of the “domain” selection. Further, if user has saved genomes through Genome Browser, user will be provided with a dynamic button to make choice between the “selected” and “all” genomes, as shown in Figure 2.

Genome Filter

Domains (*)=Microbiome,
 (B)acteria, (A)rchaea, (E)ukarya, (P)lasmiids, (V)iruses.
 Genome Completion: [F]inished, [P]ermanent Draft, [D]raft.

Seq. Status

Domain

All Finished, Permanent Draft and Draft ▼

All ▼

☒ List ☐ Tree

Show All Genomes

Acidilobus saccharovorans 345-15 (A)[F]

Aciduliprofundum boonei T469 (A)[D]

Aciduliprofundum boonei T469 (A)[F]

Aeropyrum pernix K1 (A)[F]

Archaeoglobus fulgidus DSM 4304 (A)[F]

Archaeoglobus profundus DSM 5631 (A)[F]

Caldivirga maquilingensis IC-167 (A)[F]

Candidatus Korarchaeum cryptofilum OPF8 (A)[F]

Candidatus Methanoregula boonei 6A8 (A)[F]

Figure 2: Genome Filter with Selected and Saved Genomes.

Genome Filter can be presented in two ways: the default “Genome List” and optional “Genome Tree”. The tree feature is accessible through radio-button selection, as shown in Figure 3.

User has three options to open a tree:

1. Single click to open the node itself only.
2. Double click to open the node and its subsequent children.
3. Use button to expand all nodes recursively.

Genome Filter

Domains: (B)acteria, (A)rchaea, (E)ukarya, (P)lasmsids, (V)iruses.
Genome Completion: [F]inished, [P]ermanent Draft, [D]raft.

Seq. Status

Domain

All Finished, Permanent Draft and Draft

All

List

Tree

Expand All

Collapse All

Archaea

Crenarchaeota

Thermoprotei

Acidilobales

Acidilobaceae

Acidilobus

saccharovorans

Desulfurococcales

Thermoproteales

Sulfolobales

Euryarchaeota

Korarchaeota

Thaumarchaeota

Nanoarchaeota

Bacteria

Eukaryota

Figure 3: Genome Tree.

In pages that require multiple selection of genomes, such as **Gene Search**, **Blast**, **Cassette Search**, **Function Search**, **Function Alignment**, **Artemis ACT**, a checkbox is applied to each node, and the highlight selection is propagated both up and down.

In the page of “**A Genome vs Metagenomes**”, shown in Figure 4, only the end node hosts a radio, since it requires single selection of genome. A radio selection excludes the others.

A Genome vs Metagenomes

View an isolate genome's phylogenetic distribution of genes to all metagenomes.
Please select ONE isolate genome.

Genome Filter

Domains: (*)=Microbiome,
(B)acteria, (A)rchaea, (E)ukarya, (P)lasmiids, (V)iruses.
Genome Completion: [F]inished, [P]ermanent Draft, [D]raft.

Seq. Status

Domain

All Finished, Permanent Draft and Draft

All

☐ List ☒ Tree

Expand All

Collapse All

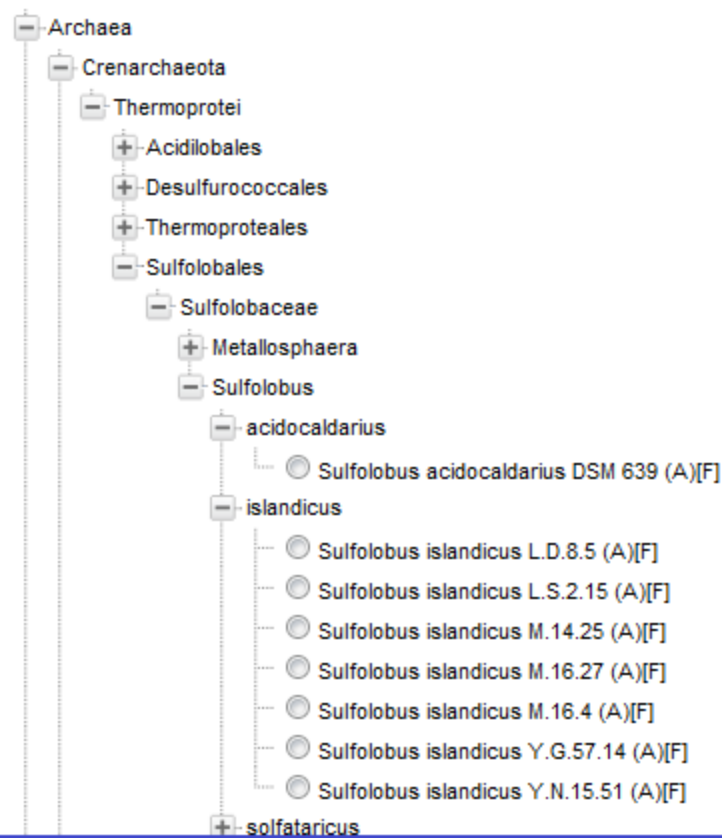


Figure 4: Genome Tree in A Genome vs. Metagenomes